

October 14, 2016

REMEDIAL INVESTIGATION / FEASIBILITY STUDY

Progress Report #7 — September 2016

Prepared for

**COLUMBIA FALLS ALUMINUM COMPANY, LLC
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TABLE OF CONTENTS

1.0 INTRODUCTION	1
2.0 WORK COMPLETED	2
2.1 Groundwater Sampling	2
2.2 Surface Water and Sediment Sampling	2
2.3 Investigation Derived Waste Disposal	3
2.5 Demobilization Activities	4
2.6 Field Modifications	4
2.7 Weekly Reporting and Project Conference Calls	4
3.0 WORK PLANNED FOR NEXT REPORTING PERIOD	5
3.1 Monitoring Well Redevelopment	5
3.2 Investigation Derived Waste Disposal	5
3.3 Preparation of Draft Phase I Site Characterization Summary Report	5
4.0 DATABASE UPDATES	6
5.0 SCOPE/SCHEDULE REVISIONS	7

TABLES

1. Phase I Site Characterization Groundwater Samples Collected Through September 2016
2. Phase I Site Characterization Surface Water/Sediment Samples Collected Through September 2016

APPENDIX

- A. Project Schedule

1.0 INTRODUCTION

This Progress Report (Report) presents a summary of activities completed during the period of September 2016, on behalf of Columbia Falls Aluminum Company, LLC (CFAC), for the Remedial Investigation / Feasibility Study (RI/FS) being performed at the Anaconda Aluminum Co. Columbia Falls Reduction Plant (a/k/a Columbia Falls Aluminum Plant) generally located near Columbia Falls in Flathead County, Montana (“Site”). The RI/FS is being conducted pursuant to the Administrative Settlement Agreement and Order on Consent (AOC) dated November 30, 2015 between CFAC and the United States Environmental Protection Agency (USEPA) (CERCLA Docket No. 08-2016-0002).

This Report provides a description of the actions that have been taken to comply with the AOC during the reporting period and describes work planned for the upcoming reporting period, including an updated project schedule as Appendix A. This report also provides updates regarding the availability of any new, validated sampling data received by CFAC during the reporting period. Lastly, this Report provides an update on any scope revisions and/or project delays encountered and solutions implemented to address any changes.

2.0 WORK COMPLETED

This Section provides a summary of activities completed or ongoing in September 2016.

2.1 Groundwater Sampling

Roux Associates and Hydrometrics performed groundwater sampling at approximately 60 monitoring well locations from September 9, 2016 through September 21, 2016. Groundwater samples were collected from 42 new monitoring well locations and 18 existing wells. Samples were unable to be collected from 4 wells because they were dry during the sampling event. Samples were collected in accordance with the RI/FS Work Plan, SAP, and SAP Addendum. Samples collected are summarized in Table 1.

Groundwater samples were collected using the methods described in *Ground Water Sampling Procedure, Low Stress (Low Flow) Purging and Sampling* (USEPA, 2010). During purging, a water quality meter was used to monitor water quality indicator parameters including pH, conductivity, dissolved oxygen (DO), oxygen reduction potential (ORP), temperature, and turbidity. The field parameters were recorded on monitoring well sampling datasheets and will be submitted with the Phase I Summary Report.

All groundwater samples collected were and sent to TestAmerica of Edison, New Jersey and analyzed for the parameters described in the RI/FS Work Plan. Results of the groundwater sampling activities will be provided in the Phase I Summary Report.

During groundwater sampling activities, Roux Associates observed anomalously high pH (i.e., greater than 12) in approximately 10 of the new, deep groundwater monitoring wells installed at the CFAC site. Planned monitoring well redevelopment activities are described in section 3.1 of this Progress Report.

2.2 Surface Water and Sediment Sampling

Surface water sampling was completed at 12 locations within the Flathead River and Cedar Creek at the end of August and in September 2016. The 12 locations sampled in September are in addition to 10 locations that were sampled in June 2016 (prior to low water conditions) within the Cedar Creek Reservoir Overflow Ditch, the South Percolation Ponds, and the Northern Surface

Water Area. Sediment sampling was also completed at 24 locations within Flathead River, Cedar Creek, and Cedar Creek Reservoir Overflow Ditch. Surface water and sediment samples were collected in accordance with the RI/FS Work Plan, SAP, SAP Addendum, and SAP Modification #8. Selected surface water and sediment sample locations within the Flathead River were sampled via boat as approved in SAP Modification #8. Samples collected are summarized in Table 2. Results of the surface water and sediment sampling will be presented in the Phase I Summary Report. All samples were sent to TestAmerica, Inc. for analysis of parameters specified in the RI/FS Work Plan.

2.3 Investigation Derived Waste Disposal

Investigation-derived waste (IDW) generated during the Phase I Site Characterization field activities are being managed in accordance with the IDW Management Plan dated May 9, 2016 and the AOC. Waste characterization soil samples have been collected through the field program as soil IDW was generated. Disposal of soil IDW associated with five samples was completed in September 2016. Sample results from the five soil IDW waste characterization samples indicated that soils were non-hazardous. Roux Associates provided the five sample results to the USEPA and to the Section Manager for Washington States Ecology's Waste 2 Resources Program on September 13, 2016. Disposal of soil IDW associated with the five samples was completed the week of September 26, 2016. Four, 25-yard soil containers were delivered to Waste Management Graham Road Recycling and Disposal, 1820 S. Graham Road Medical Lake, WA 99022. Transport of the containers was managed by Cascade Drilling. All soil IDW generated during the Phase I Site Characterization field activities was sent offsite for disposal in September 2016.

Monitoring well development purge water and groundwater IDW was sampled at the completion of groundwater sampling activities. Groundwater and decontamination water IDW will continue to be generated through October as monitoring well redevelopment activities are completed. Upon completion of redevelopment, Roux Associates personnel will collect additional water IDW samples from containers onsite and disposal of water will be coordinated in accordance with the IDW Management Plan and AOC.

2.5 Demobilization Activities

Following the completion of the above described work, Roux Associates personnel took an inventory of all field supplies and demobilized from the Site on September 23, 2016. Roux Associates plans to return to the Site in December 2016 for the second groundwater sampling event.

2.6 Field Modifications

No field modifications were submitted to USEPA in September 2016. USEPA provided approval of Modification #8 on September 7, 2016, for the selected surface water and sediment sample locations within the Flathead River to be sampled via boat.

2.7 Weekly Reporting and Project Conference Calls

Roux Associates submitted a weekly report to the USEPA for each week in September 2016. The weekly reports include a summary of work completed for the prior week, work upcoming for the next week, health and safety, and any additional notable items.

A conference call was held with the project team on September 29, 2016. Representatives from USEPA, MDEQ, CFAC, and Roux Associates were present for the call. During the call, topics discussed included work progress, schedule and field modifications.

3.0 WORK PLANNED FOR NEXT REPORTING PERIOD

This section summarizes the work planned for October 2016.

3.1 Monitoring Well Redevelopment

As previously discussed, during groundwater sampling activities, Roux Associates observed anomalously high pH (i.e., greater than 10) in 10 of the new, deep groundwater monitoring wells installed at the CFAC site. Roux Associates has scheduled for Hydrometrics to mobilize to the Site in October to further assess the pH conditions. Hydrometrics will pump additional water from the monitoring wells with high pH, with the intent on further developing the monitoring wells. During the pumping, Hydrometrics will monitor the pH conditions to observe whether pH decreases as a results of the redevelopment effort. Field parameter data will be recorded on a field data sheet for each location that is pumped. All of the water that is removed will be containerized in accordance with the IDW Management Plan. The results of these field activities will be further documented in future correspondence, the October Progress Report, and the Phase I Site Characterization Summary Report.

3.2 Investigation Derived Waste Disposal

Sample results from the water IDW containers will be provided to the USEPA for review in October/early November 2016 following the completion of the monitoring well redevelopment. Based on the sample results, Roux Associates, with the support of Cascade Drilling, will coordinate water disposal in accordance with the IDW Management Plan.

3.3 Preparation of Draft Phase I Site Characterization Summary Report

Roux Associates will continue to review and analyze the field and laboratory data generated during the Phase 1 Site Characterization Program. Roux Associates will begin preparing sections of the Draft Phase I Site Characterization Summary Report as validated data is received.

4.0 DATABASE UPDATES

Validation of laboratory data from the Phase I Site Characterization is being performed by Laboratory Data Consultants (LDC) as a subcontractor to Roux Associates. In September 2016, LDC provided ten (10) sets of validated soil analytical data to Roux Associates. All sets of data were uploaded to the CFAC RI/FS database in September 2016 by Roux Associates. Validated laboratory data will continue to be imported into the project database and managed in accordance with the data management procedures outlined in Section 7.10 of the QAPP. Future progress reports will discuss updates to the project database.

5.0 SCOPE/SCHEDULE REVISIONS

The schedule was updated to reflect the progress as a result of the activities completed in September 2016. No changes to the overall schedule are expected at this time. The current Phase I Site Characterization schedule is attached to this Progress Report.

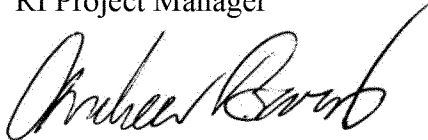
On behalf of CFAC, Roux Associates will continue to pursue the overall objectives described in the AOC and the RI/FS Work Plan. Roux Associates will continue to inform the USEPA of completed and upcoming activities pursuant to the requirements of the AOC in future progress reports.

Respectfully submitted,

ROUX ASSOCIATES, INC.

A handwritten signature in black ink, appearing to read "Michael Ritorto".

Michael Ritorto
Principal Hydrogeologist /
RI Project Manager

A handwritten signature in black ink, appearing to read "Andrew Baris".

Andrew Baris
Vice President /
Principal Hydrogeologist
RI/FS Project Manager

TABLES

1. Phase I Site Characterization Groundwater Samples Collected Through September 2016
2. Phase I Site Characterization Surface Water/Sediment Samples Collected Through September 2016

Table 1. Phase I Site Characterization Groundwater Sampling Locations
Remedial Investigation / Feasibility Study, Columbia Falls Aluminum Company, Columbia Falls, Montana

Proposed Location ID	Location Type	Screen Type	Field Sample ID	Date Completed
CFMW-001	Existing Monitoring Well	Water Table Monitoring Well	CFMW-001-GW	9/20/2016
CFMW-002	New Monitoring Well	Water Table Monitoring Well	CFMW-002-GW	9/12/2016
CFMW-003	New Monitoring Well	Water Table Monitoring Well	CFMW-003-GW	9/14/2016
CFMW-003a	New Monitoring Well	Deep Monitoring Well	CFMW-003a-GW	9/20/2016
CFMW-007	Existing Monitoring Well	Water Table Monitoring Well	CFMW-007-GW	9/21/2016
CFMW-008	Existing Monitoring Well	Water Table Monitoring Well	CFMW-008-GW	9/21/2016
CFMW-008a	New Monitoring Well	Deep Monitoring Well	CFMW-008a-GW	9/15/2016
CFMW-010	New Monitoring Well	Water Table Monitoring Well	CFMW-010-GW	9/12/2016
CFMW-011	New Monitoring Well	Water Table Monitoring Well	CFMW-011-GW	9/13/2016
CFMW-011a	New Monitoring Well	Deep Monitoring Well	CFMW-011a-GW	9/20/2016
CFMW-012	Existing Monitoring Well	Water Table Monitoring Well	CFMW-012-GW	9/12/2016
CFMW-012a	New Monitoring Well	Deep Monitoring Well	CFMW-012a-GW	9/15/2016
CFMW-014	Existing Monitoring Well	Water Table Monitoring Well	CFMW-014-GW	9/12/2016
CFMW-015	Existing Monitoring Well	Water Table Monitoring Well	CFMW-015-GW	9/12/2016
CFMW-016	New Monitoring Well	Water Table Monitoring Well	DRY	NA
CFMW-016a	New Monitoring Well	Deep Monitoring Well	CFMW-016a-GW	9/21/2016
CFMW-017	Existing Monitoring Well	Water Table Monitoring Well	DRY	NA
CFMW-018	New Monitoring Well	Water Table Monitoring Well	DRY	NA
CFMW-019	Existing Monitoring Well	Water Table Monitoring Well	CFMW-019-GW	9/12/2016
CFMW-019a	New Monitoring Well	Deep Monitoring Well	CFMW-019a-GW	9/20/2016
CFMW-020	Existing Monitoring Well	Water Table Monitoring Well	CFMW-020-GW	9/20/2016
CFMW-021	Existing Monitoring Well	Water Table Monitoring Well	CFMW-021-GW	9/12/2016
CFMW-022	New Monitoring Well	Water Table Monitoring Well	CFMW-022-GW	9/13/2016
CFMW-023	Existing Monitoring Well	Water Table Monitoring Well	CFMW-023-GW	9/21/2016
CFMW-025	Existing Monitoring Well	Water Table Monitoring Well	DRY	NA
CFMW-025a	New Monitoring Well	Deep Monitoring Well	CFMW-025a-GW	9/13/2016
CFMW-025b	Existing Monitoring Well	Water Table Monitoring Well	CFMW-25b-GW	9/13/2016
CFMW-026	New Monitoring Well	Water Table Monitoring Well	CFMW-026-GW	9/13/2016
CFMW-027	New Monitoring Well	Water Table Monitoring Well	CFMW-027-GW	9/13/2016
CFMW-028	New Monitoring Well	Water Table Monitoring Well	CFMW-028-GW	9/13/2016
CFMW-028a	New Monitoring Well	Deep Monitoring Well	CFMW-028a-GW	9/20/2016
CFMW-029	New Monitoring Well	Water Table Monitoring Well	CFMW-029-GW	9/13/2016
CFMW-031	Existing Monitoring Well	Water Table Monitoring Well	CFMW-031-GW	9/15/2016
CFMW-032	New Monitoring Well	Water Table Monitoring Well	CFMW-032-GW	9/15/2016
CFMW-032a	New Monitoring Well	Deep Monitoring Well	CFMW-032a-GW	9/16/2016
CFMW-033	New Monitoring Well	Water Table Monitoring Well	CFMW-033-GW	9/15/2016
CFMW-034	New Monitoring Well	Water Table Monitoring Well	CFMW-034-GW	9/14/2016
CFMW-035	New Monitoring Well	Water Table Monitoring Well	CFMW-035-GW	9/13/2016
CFMW-037	New Monitoring Well	Water Table Monitoring Well	CFMW-037-GW	9/16/2016
CFMW-038	New Monitoring Well	Water Table Monitoring Well	CFMW-038-GW	9/14/2016
CFMW-040	New Monitoring Well	Water Table Monitoring Well	CFMW-040-GW	9/14/2016
CFMW-042	New Monitoring Well	Water Table Monitoring Well	CFMW-042-GW	9/14/2016
CFMW-043	New Monitoring Well	Water Table Monitoring Well	CFMW-043-GW	9/13/2016
CFMW-044	Existing Monitoring Well	Water Table Monitoring Well	CFMW-044-GW	9/15/2016
CFMW-044a	New Monitoring Well	Deep Monitoring Well	CFMW-044a-GW	9/19/2016
CFMW-044b	Existing Monitoring Well	Deep Monitoring Well	CFMW-044b-GW	9/19/2016
CFMW-045	New Monitoring Well	Water Table Monitoring Well	CFMW-045-GW	9/15/2016
CFMW-045a	New Monitoring Well	Deep Monitoring Well	CFMW-045a-GW	9/19/2016
CFMW-047	New Monitoring Well	Water Table Monitoring Well	CFMW-047-GW	9/14/2016
CFMW-049	Existing Monitoring Well	Water Table Monitoring Well	CFMW-049-GW	9/21/2016
CFMW-049a	New Monitoring Well	Deep Monitoring Well	CFMW-049a-GW	9/16/2016
CFMW-050	New Monitoring Well	Water Table Monitoring Well	CFMW-050-GW	9/19/2016
CFMW-053	Existing Monitoring Well	Water Table Monitoring Well	CFMW-053-GW	9/14/2016
CFMW-053a	New Monitoring Well	Deep Monitoring Well	CFMW-053a-GW	9/19/2016
CFMW-054	New Monitoring Well	Water Table Monitoring Well	CFMW-054-GW	9/14/2016
CFMW-056	Existing Monitoring Well	Deep Monitoring Well	CFMW-056-GW	9/20/2016
CFMW-056a	New Monitoring Well	Deep Monitoring Well	CFMW-056a-GW	9/20/2016
CFMW-056b	New Monitoring Well	Water Table Monitoring Well	CFMW-056b-GW	9/13/2016
CFMW-057	Existing Monitoring Well	Deep Monitoring Well	CFMW-057-GW	9/19/2016
CFMW-057a	New Monitoring Well	Deep Monitoring Well	CFMW-057a-GW	9/19/2016
CFMW-059	New Monitoring Well	Water Table Monitoring Well	CFMW-059-GW	9/15/2016
CFMW-059a	New Monitoring Well	Deep Monitoring Well	CFMW-059a-GW	9/19/2016
CFMW-061	New Monitoring Well	Water Table Monitoring Well	CFMW-061-GW	9/15/2016
CFMW-064	New Monitoring Well	Water Table Monitoring Well	CFMW-064-GW	9/15/2016

Table 2. Phase I Site Characterization Surface Water and Sediment Samples
Remedial Investigation / Feasibility Study, Columbia Falls Aluminum Company, Columbia Falls, Montana

Proposed Location ID	Field Sample ID	Sample Type	Date Completed	Site Feature
CFSW-001	CFSDP-001-SO	Sediment	9/8/2016	Flathead River
CFSW-001	CFSWP-001-SW	Surface Water	9/16/2016	Flathead River
CFSW-002	CFSDP-002-SO	Sediment	9/8/2016	Flathead River
CFSW-002	CFSWP-002-SW	Surface Water	9/16/2016	Flathead River
CFSW-003	CFSDP-003-SD	Sediment	9/9/2016	Seep Area
CFSW-003	CFSWP-003-SW	Surface Water	9/9/2016	Seep Area
CFSW-004	CFSDP-004-SD	Sediment	9/9/2016	Seep Area
CFSW-004	CFSWP-004-SW	Surface Water	9/9/2016	Seep Area
CFSW-005	CFSDP-005-SD	Sediment	9/9/2016	Seep Area
CFSW-005	CFSWP-005-SW	Surface Water	9/9/2016	Seep Area
CFSW-006	CFSDP-006-SO	Sediment	9/9/2016	Flathead River
CFSW-006	CFSWP-006-SW	Surface Water	9/9/2016	Flathead River
CFSW-007	CFSDP-007-SO	Sediment	9/8/2016	Flathead River
CFSW-007	CFSWP-007-SW	Surface Water	9/16/2016	Flathead River
CFSW-008	CFSDP-008-SO	Sediment	9/8/2016	Flathead River
CFSW-008	CFSWP-008-SW	Surface Water	9/16/2016	Flathead River
CFSW-009	CFSDP-009-SO	Sediment	9/6/2016	Cedar Creek Reservoir Overflow
CFSW-009	CFSWP-009-SW	Surface Water	6/7/2016	Cedar Creek Reservoir Overflow
CFSW-010	CFSDP-010-SO	Sediment	9/6/2016	Cedar Creek Reservoir Overflow
CFSW-010	CFSWP-010-SW	Surface Water	6/7/2016	Cedar Creek Reservoir Overflow
CFSW-011	CFSDP-011-SO	Sediment	9/6/2016	Cedar Creek Reservoir Overflow
CFSW-011	CFSWP-011-SW	Surface Water	6/7/2016	Cedar Creek Reservoir Overflow
CFSW-012	CFSDP-012-SO	Sediment	9/6/2016	Cedar Creek Reservoir Overflow
CFSW-012	CFSWP-012-SW	Surface Water	6/7/2016	Cedar Creek Reservoir Overflow
CFSW-013	CFSDP-013-SO	Sediment	9/6/2016	Cedar Creek Reservoir Overflow
CFSW-013	CFSWP-013-SW	Surface Water	6/7/2016	Cedar Creek Reservoir Overflow
CFSW-014	CFSDP-014-SD	Sediment	8/29/2016	Cedar Creek
CFSW-014	CFSWP-014-SW	Surface Water	8/29/2016	Cedar Creek
CFSW-015	CFSDP-015-SD	Sediment	8/29/2016	Cedar Creek
CFSW-015	CFSWP-015-SW	Surface Water	8/29/2016	Cedar Creek
CFSW-016	CFSDP-016-SD	Sediment	8/29/2016	Cedar Creek
CFSW-016	CFSWP-016-SW	Surface Water	8/29/2016	Cedar Creek
CFSW-017	CFSDP-017-SO	Sediment	9/8/2016	Flathead River
CFSW-017	CFSWP-017-SW	Surface Water	9/16/2016	Flathead River
CFSW-018	CFSDP-018-SD	Sediment	9/7/2016	South Percolation Ponds
CFSW-018	CFSWP-018-SW	Surface Water	6/6/2016	South Percolation Ponds
CFSW-019	CFSDP-019-SD	Sediment	9/7/2016	South Percolation Ponds
CFSW-019	CFSWP-019-SW	Surface Water	6/6/2016	South Percolation Ponds
CFSW-020	CFSDP-020-SD	Sediment	9/7/2016	South Percolation Ponds
CFSW-020	CFSWP-020-SW	Surface Water	6/6/2016	South Percolation Ponds
CFSW-021	CFSDP-021-SO	Sediment	9/6/2016	Northern SW Area
CFSW-021	CFSWP-021-SW	Surface Water	6/6/2016	Northern SW Area
CFSW-022	CFSDP-022-SO	Sediment	9/6/2016	Northern SW Area
CFSW-022	CFSWP-022-SW	Surface Water	6/6/2016	Northern SW Area
CFSW-023	CFSDP-023-SD	Sediment	9/7/2016	Northwest Percolation Pond
CFSW-023	DRY	Surface Water	NA	Northwest Percolation Pond
CFSW-024	CFSDP-024-SD	Sediment	9/7/2016	Northeast Percolation Pond
CFSW-024	DRY	Surface Water	NA	Northeast Percolation Pond

Project Schedule

